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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/761,025	01/16/2001	Shin Utsunomiya	KOGYO-7	4717

7590 11/21/2002

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EXAMINER
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MCCLENDON, SANZA L

ART UNIT	PAPER NUMBER
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1711

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DATE MAILED: 11/21/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/761,025

Applicant(s)

UTSUNOMIYA ET AL.

Examiner

Sanza L McClendon

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 May 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) 5-10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 7-8. 6) ☐ Other: \_\_\_\_\_

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DETAILED ACTION

*Election/Restrictions*

1. Claims 5-10 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention (Group II), there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 10.

*Claim Rejections - 35 USC § 112*

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-3 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear the basis for the composition proportional ranges. Are they on the proportional ranges of the three monomer units only, proportional ranges for the total of all units within the composition, assuming the composition has other components of the same nature within said composition, the proportion of all units within the polymer assuming there are other monomeric units within said polymer—see claim 2. What happens when the proportional ranges within the polymer total 100%, does this still mean that other monomeric units can be within the polymer—see claim 2. Clarification is requested.

*Claim Rejections - 35 USC § 102*

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1 and 3 are rejected under 35 U.S.C. 102(b) as being anticipated by Hattori et al (5,773,194).

Hattori et al teaches light sensitive compositions, wherein the composition comprises (a) vinyl type polymer having units represented by formula (1) (see abstract) and a carboxyl group, wherein the monomer units of formula 1 are found in amounts from 0.001 to 10 weight percent. Said vinyl type polymer is obtained by copolymerizing a compound comprising the units of formula (1) and an  $\alpha,\beta$ -ethylenically unsaturated carboxylic acid by a conventional method and then reacting and ethylenically unsaturated compound containing glycidyl groups, such as glycidyl methacrylate or glycidyl acrylate. Hattori et al shows polymers made by this method in columns 6-10, wherein the polymer (3) in column 6 appears to anticipate a polymer comprising units as claimed by applicant (see claim 1 and 3).

Although Hattori et al does not specifically disclose the same compositional proportions of the monomers in the ranges disclosed in claims 1 and 3, Hattori et al does disclose a polymer that appears to anticipate the claimed polymer. Thusly the examiner contends it can be reasonably assumed that polymer (3) comprises at least some of applicant's compositional proportion of monomer units, especially because applicant's proportional ranges are to some extent extensive. In addition, the Patent Office is not equipped to conduct experimentation in order to determine whether Applicant's composition differs and, if so, to what extent, from the discussed reference. Therefore, with the showing of the reference, the burden of establishing non-obviousness by objective evidence is shifted to the Applicants.

6. Claims 1 and 3 are rejected under 35 U.S.C. 102(b) as being anticipated by Okuhara et al (5,102,775).

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Okuhara et al teaches visible light sensitive electrodeposition coatings, wherein said coating comprises a composition comprising (A) a photocurable resin having light sensitive groups capable of being crosslinked or polymerized by light irradiation and ionic groups. One said photocurable resin can be prepared by linking a glycidyl group containing unsaturation to an acrylic acid resin having a high acid value. Said acrylic resin can be obtained by copolymerizing a  $\alpha,\beta$ -ethylenically unsaturated acid, such as acrylic or methacrylic acid with at least one unsaturated monomer selected from a (meth) acrylic ester, such as hydroxyethyl (meth) acrylate. This method appears to anticipate the method of claim 3 and thusly will comprises the monomer units of claim 1.

Although Okuhara et al does not specifically disclose the same compositional proportions of the monomers in the ranges disclosed in claims 1 and 3, Okuhara et al does disclose a polymer and method of obtaining said polymer, which appears to anticipate the claimed polymer. Thusly the examiner contends it can be reasonably assumed said polymer comprises at least some of applicant's compositional proportion of monomer units, especially because applicant's proportional ranges are to some extent extensive. In addition, the Patent Office is not equipped to conduct experimentation in order to determine whether Applicant's composition differs and, if so, to what extent, from the discussed reference. Therefore, with the showing of the reference, the burden of establishing non-obviousness by objective evidence is shifted to the Applicants.

7. Claims 1 and 3 are rejected under 35 U.S.C. 102(b) as being anticipated by Lee et al (5,153,102).

Lee et al teaches photographic compositions, comprising an acrylic copolymer with hydroxyl group, carboxyl groups, and branched unsaturated double bonds. Said acrylic copolymer can be obtained by first copolymerizing an acrylic monomer with hydroxyl groups, such as hydroxyethyl acrylate, an acrylic compound with carboxylic groups, such as acrylic or methacrylic acid, and other acrylic monomers. Secondly said acrylic copolymer can be reacted with a glycidyl (meth) acrylate compound in a condensation reaction--see example 1. Lee et al teaches that the finished product should comprise 3-15 mole percent of hydroxyl groups, 5-40 mole percent of acid groups, and other functional groups should comprise less mole percentages than the hydroxyl and

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acid mole percents. Wherein, the other monomer units would have to be at least less than 15 mol% of the hydroxyl groups, therefore the examiner contends that claim 2 appears to be anticipated since the Patent Office is not equipped to conduct experimentation in order to determine whether Applicant's composition differs and, if so, to what extent, from the discussed reference. Therefore, with the showing of the reference, the burden of establishing non-obviousness by objective evidence is shifted to the Applicants.

8. Claims 1 and 3 are rejected under 35 U.S.C. 102(b) as being anticipated by Hoffman et al (4,806,450).

Hoffman et al teaches recording elements comprising a photosensitive layer. Said photosensitive layer comprises a film forming copolymer that consist of from 10 to 50% by weight of one or more hydroxyalkyl (meth) acrylates, from 8 to 30 wt% of acrylic acid and/or methacrylic acid, and from 30 to 80 wt% of one or more alkyl (meth) acrylates, wherein some carboxyl groups of the copolymer have been esterified by reaction with glycidyl (meth) acrylate—see abstract. This appears to anticipate the claimed method and polymer units of claims 1 and 3.

Although Hoffman et al does not specifically disclose the same compositional proportions of the monomers in the ranges disclosed in claims 1 and 3, Hoffman et al does disclose a polymer and method that appears to anticipate the claimed polymer. Thusly the examiner contends it can be reasonably assumed said polymer) comprises at least some of applicant's compositional proportion of monomer units, especially because applicant's proportional ranges are to some extent extensive. In addition, the Patent Office is not equipped to conduct experimentation in order to determine whether Applicant's composition differs and, if so, to what extent, from the discussed reference. Therefore, with the showing of the reference, the burden of establishing non-obviousness by objective evidence is shifted to the Applicants.

*Claim Rejections - 35 USC § 103*

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hoffman et al (4,806,450).

Hoffman et al does not expressly disclose using the thermal inhibitors of claim 4 in the method of making said polymer. However, Hoffman et al, per example 1, teaches adding the thermal inhibitor Xyligen ®A1 in the method of esterifying the carboxyl groups with glycidyl (meth) acrylates, while also teaches that thermal inhibitors, such as N-nitrosoamines and there salts, therefore it would have been obvious for one of ordinary skill in the art to use a nitrosoamines as a thermal polymerization inhibitor in the method for making the polymers taught by Hoffman. The motivation would have been a reasonable expectation of inhibiting thermal polymerization during synthesis of said polymer taught by Hoffman et al in the absence of unexpected results.

#### *Conclusion*

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sanza L McClendon whose telephone number is (703) 305-0505. The examiner can normally be reached on Monday through Friday 8:00 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on (703) 308-2462. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

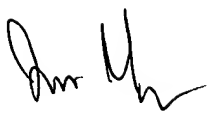
Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0657.

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Sanza L McClendon  
Examiner  
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SMc  
November 14, 2002



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